

REMARKS

Claims 1-5, 10-11, 14-17, 19 and 34-35 have been amended herein. The Action rejected claims 1-39 under 35 U.S.C. §102(b) as being anticipated by Davis et al. (USPN 5,820,554). The Action also rejected claims 1-39 under 35 U.S.C. §103(a) as being unpatentable over Terwilliger (USPN 5,766,135) in view of Davis et al. (USPN 5,820,554).

Rejections under 35 USC §102

The present invention is directed towards a medical device having multiple concave slots that give the device increased visibility to an ultrasonic imager when inserted into a body. In one example embodiment, each slot has a first bottom surface that is substantially flat in a first cross section and a second surface that is substantially curved in a second cross section. In another example embodiment, the device has a contoured surface and each slot has a bottom surface that follows the contours of the contoured surface between a first and a second end and each concave slot also has curved side surfaces at each end of the bottom surface. Preferably, the concave slots are formed around the outer surface of the device in a manner which improves the echogenicity of the device.

Conversely, Davis discloses a medical device having an inner stylet with multiple “annular grooves” extending around the entire circumference of the stylet (Davis, Fig. 2). Like the present invention, the device is designed to enhance the echogenicity of the device (Davis, col. 2, lines 33-37). The stylet is adapted for insertion into an outer cannula, which protects the body from damage that would occur if the grooved stylet was inserted directly into the body (Davis, col. 4, lines 16-21).

Claims 1 and 34, as amended, makes it more clear that each concave slot has a first bottom surface that is substantially flat and a second surface that is substantially curved. The Action compares the grooves in Davis to the concave slot of the present invention. Although Applicants respectfully disagree that the grooves in Davis are comparable to the slots in the present invention, the grooves of Davis do not meet all of the elements of amended claim 1. Specifically, Davis does not disclose a substantially flat bottom surface. The Action uses an enlarged copy of the Fig. 2 from Davis to assert that an upper portion (i.e., a sidewall) of the

groove has a substantially flat surface and a bottom portion of the groove has a substantially curved surface. Since claims 1 and 34 require the presence of a substantially flat bottom surface, the claims are patentably distinguishable from Davis. The Action's portrayal of Davis makes Davis simply an example of the prior art's rounded bottom slots illustrated in Fig. 3B of the present Application. By contrast, Applicant's have improved echogenicity with the substantially flat bottomed slots shown in Figs. 4B and 7. As the Action points out, the bottom portion of the groove, or the bottom surface, is curved and therefore cannot meet this requirement of claims 1 and 34. Therefore, Davis fails to teach, suggest or disclose all of the elements of amended claims 1 and 34.

Claim 19, as amended, requires a contoured surface having a plurality of concave slots where each has a bottom surface that follows the contours of the contoured surface in a direction between a first and a second end. Each concave slot also has curved side surfaces at each end of the bottom surface. Davis does not disclose all of the elements of amended claim 19. Specifically, Davis does not disclose a bottom surface that follows a contoured surface in a direction between a first and second end. Because the groove is annular and extends around the entire circumference of the stylet, there is no first and second end between which the bottom surface can extend. Accordingly, there are no curved side surfaces at each end of the bottom surface. The upper portion of the groove, referred to as the "first flat cross section" in the Action and located adjacent to the bottom portion of each groove, cannot be compared to the first and second ends because the bottom surface does not follow the contoured surface between the adjacent upper portions of the groove. Therefore, Davis fails to teach, suggest or disclose all of the elements of amended claim 19.

Because Davis fails to teach, suggest or disclose all of the elements of amended claims 1, 19 and 34, Applicants respectfully request that the rejection to these claims be withdrawn. Furthermore, because claims 2-18, 20-33 and 35-40 depend from the aforementioned independent claims, Applicant respectfully requests that the rejections to those claims be withdrawn as well.

Rejections under 35 USC §103

Claims 1-39 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Terwilliger in view of Davis. However, as demonstrated above Davis fails to disclose a substantially flat bottom surface as recited in claims 1 and 34, and Davis also fails to disclose a bottom surface having a first and second end, wherein the bottom surface follows the contours of a contoured surface in a direction between the first and a second end.

As noted in the Action, Terwilliger fails to mention expressly that the surface is substantially flat in a first cross section. Terwilliger also fails to disclose a substantially flat bottom surface as recited in claims 1 and 34. Like Davis, Terwilliger fails to teach, suggest or disclose a bottom surface having a first and second end, wherein the bottom surface follows the contours of a contoured surface in a direction between the first and a second end as recited in amended claim 19. Therefore, because Davis and Terwilliger fail to teach, suggest or disclose all of the elements of the independent claims 1, 19 and 34, Applicants respectfully request that the rejection to those claims be withdrawn. Furthermore, because claims 2-18, 20-33 and 35-40 depend from the aforementioned independent claims, Applicant respectfully requests that the rejections to those claims be withdrawn as well.

Conclusion

Applicant respectfully asserts that claims 1-40 are in allowable form. Prompt and favorable action on the merits of the claims is earnestly solicited. Should the Examiner have any questions or comments, the undersigned can be reached at (949) 567-6700.

Respectfully submitted,

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